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Applicants request entry of this amendment in adherence with 37 C.F.R. §§1.821 to 1.825. This amendment is accompanied by a floppy disk containing the above named sequences, SEQ ID NOS:1-479, in computer readable form, and a paper copy of the sequence information which has been printed from the floppy disk.

The information contained in the computer readable disk was prepared through the use of the software program "PatentIn" and is identical to that of the paper copy. This amendment contains no new matter.

Attached hereto is a marked-up version of the changes made to the Specification and Claims by the current Amendment. The attached pages are captioned **"VERSION WITH MARKINGS TO SHOW CHANGES MADE."**

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at .

Respectfully submitted,

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AUG 22 2002

PATENT

TECH CENTER 1600/2900

CECH *et al.*  
Application No.: 08/974,584  
Page 5



VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims:

Claims 119-125 have been amended as follows:

119. (Amended) A recombinant or synthetic polynucleotide encoding a protein that comprises each of the following structures:

a) Trp-R<sub>1</sub>-X<sub>7</sub>-R<sub>1</sub>-R<sub>1</sub>-R<sub>2</sub>-X-Phe-Phe-Tyr-X-Thr-Glu-X<sub>8-9</sub>-R<sub>3</sub>-R<sub>3</sub>-Arg-R<sub>4</sub>-X<sub>2</sub>-  
Trp (SEQ ID NOS:16 and 17) Trp-R<sup>+</sup>-X<sub>7</sub>-R<sup>+</sup>-R<sup>+</sup>-R<sup>2</sup>-X-Phe-Phe-Tyr-X-Thr-Glu-X<sub>8-9</sub>-R<sup>3</sup>-  
R<sup>3</sup>-Arg-R<sup>4</sup>-X<sub>2</sub>-Trp

b) X<sub>3</sub>-Arg-X<sub>2</sub>-Pro-Lys-X<sub>3</sub> (SEQ ID NO:139)

c) X-Arg-X-Ile-X (SEQ ID NO:143)

d) X<sub>4</sub>-Phe-X<sub>3</sub>-Asp-X<sub>4</sub>-Tyr-Asp-X<sub>2</sub> (SEQ ID NO:144)

e) Tyr-X<sub>4</sub>-Gly-X<sub>2</sub>-Gln-Gly-X<sub>3</sub>-Ser-X<sub>8</sub> (SEQ ID NO:146)

f) X<sub>6</sub>-Asp-Asp-X-Leu-X<sub>3</sub> (SEQ ID NO:147)

wherein R<sub>1</sub> R<sup>+</sup> is Leu or Ile; R<sub>2</sub> R<sup>2</sup> is Gln or Arg; R<sub>3</sub> R<sup>3</sup> is Phe or Tyr; R<sub>4</sub>  
R<sup>4</sup> is Lys or His, and X<sub>n</sub> represents the number n of consecutive unspecified amino acids;

and wherein the protein has telomerase catalytic activity when complexed  
with a telomerase RNA component.

120. (Amended) The polynucleotide of claim 120, encoding a protein  
that comprises the structure Trp-Leu-X-Tyr-X<sub>2</sub>-h-h-X-h-h-X-p-Phe-Phe-Tyr-X-Thr-Glu-  
X-p-X<sub>3</sub>-p-X<sub>3</sub>-Tyr-X-Arg-Lys-X<sub>2</sub>-Trp (SEQ ID NO:116); wherein h is a hydrophobic  
amino acid selected from Ala, Leu, Ile, Val, Pro, Phe, Trp, and Met; and p is a polar  
amino acid selected from Gly, Ser, Thr, Tyr, Cys, Asn and Gln.

CECH *et al.*  
Application No.: 08/974,584  
Page 6

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AUG 22 2002

TECH CENTER 1600/2900

PATENT



121. (Amended) The polynucleotide of claim 119, where structure a) further comprises Arg-Lys-X<sub>2</sub>-Trp-X<sub>2</sub>-Leu (SEQ ID NO:477).

122. (Amended) The polynucleotide of claim 119, where structure b) comprises h-Arg-h-X-Pro-Lys (SEQ ID NO:473), wherein h is a hydrophobic amino acid selected from Ala, Leu, Ile, Val, Pro, Phe, Trp, and Met.

123. (Amended) The polynucleotide of claim 119, where structure c) comprises Arg-X-Ile-Pro-Lys (SEQ ID NO:478).

124. (Amended) The polynucleotide of claim 119, where structure e) comprises Gly-Ile-Pro-Gln-Gly-Ser (SEQ ID NO:370).

125. (Amended) The polynucleotide of claim 119, where structure f) comprises Leu-Leu-Leu-Arg-Leu-X-Asp-Asp-Phe-Leu (SEQ ID NO:479).